VYZGO, Mikhail Sigizmundovich; OSADCHIY, F.Ya., red.; RODIONOVA, Z.P., tekhn.red.

[Hydraulic computations for seepage from canals and the protective layer] Gidravlicheskii raschet fil'tratsii iz kanalov i protivofil'tratsionnogo sloia. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR, 1959. 38 p. (MIRA 12:8)
(Canals) (Soil percolation)

SOV/124-57-7-7890

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 7, p 61 (USSR)

AUTHORS: Vyzgo, M. S., Filippov, Ye. G.

TITLE: The Spreading of a Jet and the Erosion of Loose Soil (Rastekaniye strui i razmyv nesvyaznogo grunta)

PERIODICAL: Izv. AN UzSSR, 1956, Nr 5, pp 45-56

ABSTRACT: Certain aspects of the phenomenon of spreading of a non-free submerged jet and the erosion of loose soil are clarified. A description of experiments is given on the vertical flow of a rectangular water jet in a medium consisting of water and sand in suspension which has been displaced from the bottom of a flume by the action of the jet. The dynamics of the formation of the erosion crater were studied. It was established that after a certain period of time the depth of the crater and its form become stabilized and a definite portion of the sand remains in a constant state of suspension. It is pointed out that an artificial change in the density of the medium accomplished by means of adding sand to the erosion crater or by siphoning off the suspended sand in a corresponding decrease or increase in the depth of the crater up to a definite stable value. Various aspects of the motion of the

Card 1/2

The Spreading of a Jet and the Erosion of Loose Soil

seepage flow in the non-eroded soil are studied, as well as the pressure distribution along the contour of the crater. The values of the coefficient K in the formula of M. S. Vyzgo for the depth of erosion

$$t = K q_0^{0.5} E_0^{0.25}$$

are calculated by means of experimentally-obtained data. The values of K obtained for one and the same type of soil ranged from 2 to 5. According to the author these values indicate that the depth of erosion depends upon the hydrodynamic characteristics of the jet and the degree of freedom for its spreading and the quantity and size of the particles of the suspended medium, but not on the properties of the soil generally evaluated by the permissible flow velocity. The formulas of G. V. Vostrzhela were used for an approximate evaluation of pressure at the bottom of the crater. These formulas correspond to those of the free, turbulent, submerged jets (RZh-Mekh., 1956, abstract 4550). In the first formula on page 46 of the article a factor v_o has been inadvertently left out in the numerator. Bibliography: 11 references.

A. G. Chanishvili

Card 2/2

SOV/124-57-9-10331

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 9, p 63 (USSR)

AUTHOR: Vyzgo, M.S.

TITLE: Hydraulic Schematic of the Erosion Behind a Horizontal Reinforcement and Formula for the Calculation of the Erosion Depth (Gidravlicheskaya skhema razmyva za gorizontal'nym krepleniyem i raschetnaya formula dlya glubiny razmyva)

PERIODICAL: Izv. AN UzSSR, 1956, Nr 11, pp 11-17

ABSTRACT: The schematic in question is a development of one proposed earlier (RZhMekh, 1955, abstract 5537). Basically it is founded on the assumption that the depth of a local erosion is determined as the conjugated depth of the jump function with due account of the irregularity of the velocity distribution which indirectly depends also on the characteristics of the soil. Even with all the assumptions made the maximum erosion depths calculated according to the author's method do not substantially differ from the results of his laboratory experiments.

V. N. Goncharov

Card 1/1

ABAL'YANTS, S.Kh., kand.tekhn.nauk, red.; ALIMOV, R.A., red.; ALTUNIN, S.T., doktor tekhn.nauk, red.; VYZGO, M.S., red.; ZAPROMETOV, S.G., kand. tekhn.nauk, red.; MUKHAMEDOV, A.M., kand.tekhn.nauk, red.; NIKITIN, I.K., kand.tekhn.nauk, red.; POPOVA, K.L., red.; POSLAVSKIY, V.V., akademik, red.; ROSSINSKIY, K.I., kand.tekhn.nauk, red.; URAZBAYEV, M.T., doktor tekhn.nauk, red.; IVANENKO, T.A., red.izd-va; GOR'KOVAYA, Z.P., tekhn.red.

[Channel processes and hydraulic engineering; papers of a coordination conference, June 7-12, 1955] Ruslovye protsessy i gidrotekhnicheskoe stroitel'stvo; materialy koordinatsionnogo soveshchaniia 7-12 iiunia 1955 g. Tashkent, Izd-vo Akad. nauk Uzbekskoi SSR, 1957. 416 p. (MIRA 11:5)

1. Akademiya nauk SSSR. Sektsiya po nauchnoi razrabotke problem vodnogo khoziaistva. 2. Sredneaziatskiy politekhnicheskiy institut (for Abal'yants). 3. Ministerstvo vodnogo khozyaystva UzSSR (for Alimov). 4. Sredneaziatskiy nauchno-issledovatel'skiy institut irrigatsii (for Vyzgo, Nikitin). 5. Institut sooruzheniy AN UzSSR. (for Altunin, Zaprometov, Mukhamedov, Urazbayev). 7. Chlen-korrespondent AN UzSSR (for Alimov, Altunin, Vyzgo). 8. Akademiya nauk UzSSSR (for Poslavskiy)

(Hydraulic engineering)

VYZGO, M.S.

Some comments on D.I. Kumin's "universal dependence" for the α_0 corrective taking the pulsation into consideration. Izv. AN Uz. SSR.Ser.tekh.nauk no.1:55-58 '58. (MIRA 11:6)

1.Institut vodnykh problem i gidrotekhniki AN UzSSR. Chlen-korrespondent AN UzSSR.
(Hydrodynamics)

VYZGO, T.

Uzbek SSR Moskva, Gos. muzykal'noe izd-vo, 1954. 57 p. (Muzykal'naia kul'tura soiuznykh respublik) (55-59720)

ML309.U9V9

1. Music - Uzbekistan - Hist. & crit.

VYZGO, V.S.; PAVLOVA, A.I.; NABIYEV, M.N.

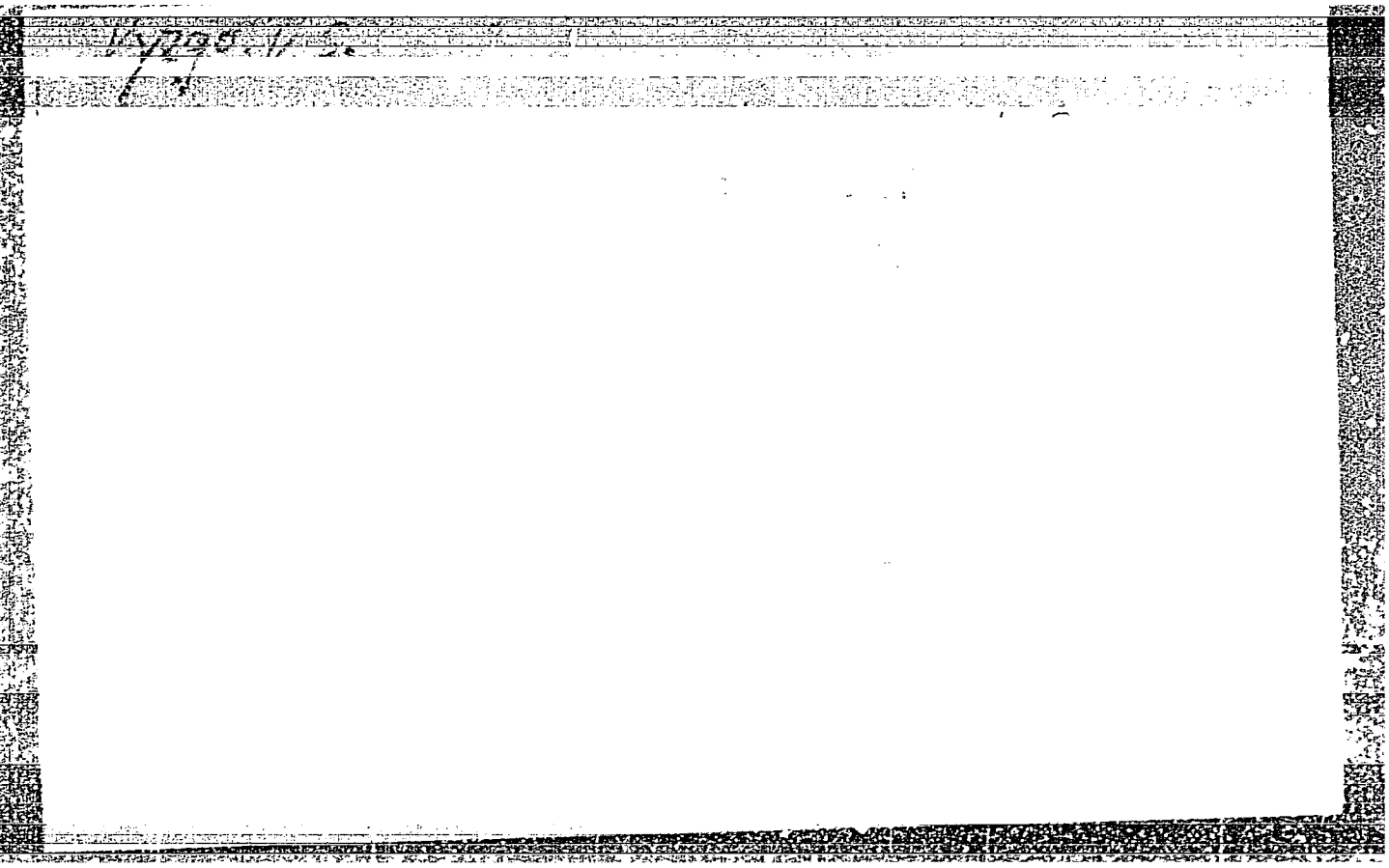
Possible intensification of the process of manufacturing fertilizers with the use of fluidization. Uzb. khim. zhur. 9 no.4: 5-10 '65. (MIRA 18:12)

1. Institut khimii AN UzSSR. Submitted April 8, 1965.

NISHANOV, I.N.; VYZGO, V.S.; NABIYEV, M.N.

Ammonia neutralization of solutions obtained by the decomposition of Kara-Tau phosphorites by nitric acid. Uzb.khim.zhur. 6 no.1:21-25 '62. (MIRA 15:3)

1. Institut khimii AN UzSSR.
(Phosphorites) (Nitric acid) (Ammonia)



FISHER, P.Z.; VYZGO, V.S.; CHERNILOVSKAYA, A.I.; TSYGANOV, G.A.

Potentials on electrodes nickel-plated from modified baths. Trudy Inst. Khim., Akad. Nauk Uzbek. S.S.R., Obshchaya i Neorg. Khim. No.2, 152-63 '49. (MLRA 5:12)
(CA 47 no.17:8554 '53)

1. Inst. Khim., Uzbek. S.S.R.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001961420015-2"

NABIYEV, M.N., akademik; VYZGO, V.S.; SAIBOVA, M.T.

Curves of heating of mixtures of monosubstituted phosphates of calcium and ammonium. Dokl.AN Uz.SSR no.6:21-23 '59. (MIRA 12:9)

1. Institut khimii AN UzSSR. 2. AN UzSSR (for Nabiyev).
(Ammonium phosphate--Thermal properties)
(Calcium phosphate--Thermal properties)

VYZHANOV, A.

Long-term contracts with the firm "Voest." Vnesh. torg. (MIRA 14:8)
41 no.9:19 '61.
(Russia--Commerce--Austria)
(Austria--Commerce--Russia)

VOROPAY, A.P.; VYZHEKHOVSKAYA, M.F.; DRUGOV, I.P.; KOMARNITSKIY, Yu.A.; MAKSIMENKO, I.I.; PAVLOVSKIY, V.V.; STEPANOV, D.A.; CHEREDNICHENKO, Ye.T.; GANKIN, M.B., retsenzent; FATEYEV, P.Ya., retsenzent; PESKOV, L.N., red.; DROZDOVA, N.D., tekhn.red.

[Competition for communist labor in railroad transportation] Sorevnovanie za kommunisticheskii trud na zheleznodorozhnom transporte. Moskva, Transzheldorizdat, 1963. 158 p. (MIRA 16:9)

(Socialist competition) (Railroads--Employees)

ZAYFIN, M.I.; ROZENFEL'D, I.L.; OLIKHOVNIKOV, Yu.P.;
VYZHEKHOVSKAYA, S.V.

Investigating aluminum corrosion in water at high temperatures.
Trudy Giprotsvetmetobrabotka no.24:102-123 '65.
(MIRA 18:11)

VZHESINSKIY, A.; KIRILLOV, N.I.

Investigating the processing of negative color films by means of coating with the processing solutions. Usp. nauch. fot. 8: 79-87 '62. (MIRA 17:7)

S/058/63/000/002/034/070
A062/A101

AUTHORS: Vzhesinskiy, A., Kirillov, N. I.

TITLE: Investigation of the process of treating color negative films by means of depositing on them treating solutions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 101, abstract 2D650 ("Uspekhi nauchn. fotogr.", 1962, no. 8, 79 - 87)

TEXT: An investigation was made of the process of treating various types of color negative films by means of depositing on them developing and bleaching solutions. It is shown that the considered process enables to attain the required uniformity of development, acceptable color balance and sensitometric film indices which differ but little from those obtained with the usual process of treatment. Additionally there is obtained a better stability of the sensitometric indices of the films with respect to the duration of development and this is, together with the simplicity of the investigated process and the possibility of developing the films always in a fresh developing solution, an important merit of the process. It is established that depositing a bleaching solution on the treated film permits to eliminate completely the drawback of the process, NIKFI, which drawback

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S/058/63/000/002/034/070
A062/A101

Investigation of the process of...

consists in a lesser stability of the bleach solution due to the introduction in it of the fixer together with the film. Thus the process of treatment of color negative films with depositing on them a viscous developer and a somewhat viscous bleach solution is suitable for practical application.

[Abstracter's note: Complete translation]

Card 2/2

VYZHGINA, L.B.; PUCHKOVA, L.V.

Metric invariants of equations of quadrics in hyperspaces. Uch. zap. MGPI no.208:214-221 '63. (MIRA 17:6)

VYZHGINA, L.B.; PROKHOROVA, R.I.

Quadrics in Galilean space. Uch. zap. MOPI 123:479-490 '63.
(MIRA 17:4)

VYZHGINA, L.B.; SEMENOVA, I.N.; TYURINA, I.I.

Quadrics in hyperspace. Uch. zap. MOPI 123:491-507 '63. (MIRA 17:4)

VYZHIGIN, G.B.; CHEREPANOV, V.B.

Results of intensive flooding of the Kalinovka oil and gas field. Geol. nefti i gaza 5 no. 2:20-24 F '61. (MIRA 14:2)

1. Neftepromysel No. 1 Neftepromyslovogo upravleniya Kinel'-nefti'.
(Kuybyshev Province--Oil field flooding)

CHEREPANOV, V.B., starshiy inzh.; VYZHIGIN, G.B., starshiy geolog

Fishing without shutting in the flow. Neftianik 5 no.3:12-13 Mr '60. (MIRA 14:9)

1. Promysel No.1 neftepromyslovogo upravleniya Kinel'neft.' (Oil fields--Production methods)

VYZHIGIN, G.V., inzh.; YAMPOL'SKIY, L.S., inzh.; VOLKOV, A.A., inzh.

New standard designs for multistory industrial buildings.
Prom. stroi. 42 no.3:2-6 '65. (MIRA 18:7)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut promyshlennykh zdaniy i sooruzheniy.

MAZIN, M.P., inzh.; VYZHIGIN, G.V.; VOLKOV, A.A., inzh.

Designing joints of prefabricated reinforced concrete structures for multistoried buildings allowing for tolerances. Prom. stroi. 42 no.7:9-13 '65. (MIRA 18:8)

DEKHTYAR', A.I., inzh.; SUKHANOV, P.S., inzh.; VYZHIGIN, G.V., inzh.

New construction decisions on multistory industrial buildings.
Prom. stroi. 41 no.2:2-6 F '64. (MIRA 17:3)

VYZHIGIN, G.B.

Some results of the development of the Kalinovka oil field.
Geol. nefti. i gaza 8 no.10:13-17 O '64. (MIRA 17:12)

1. Neftepromyslovoye upravleniye Kinel'neft'.

VYZHIGIN, G.V., inzh.; STARTSEV, V.I., inzh.; OCHERETYANNYY, S.M., inzh.

Standard panels for buildings with suspended equipment. Prom.stroi. 43 no.12:24-27 '65. (MIRA 18:12)

VYZHIGIN, G.V., inzh.; DMITRIYEV, S.P.

Precast monolithic construction elements of multistoried plants to be built in seismic regions. Prom. stroi. 38 no.9:16-19 '60. (MIRA 13:9)

1. Gipromoloko (for Dmitriyev).
(Earthquakes and building)
(Precast concrete construction)

VYZHULL, G.G.

Orenburg Province is striving for high standards of agriculture. Zemledelie 8 no.11:20-25 N '60. (MIRA 13:10)

1. Nachal'nik Orenburgskogo oblastnogo upravleniya sel'skogo khozyaystva.
(Orenburg Province--Agriculture)

VYZHULL, Gavriil Gerasimovich; MIKHNEVICH, A.Ye., red.; TSYURKO, M.I., tekhn. red.

[Agriculture of Orenburg Province in the second year of the seven-year plan] Sel'skoe khoziaistvo Orenburgskoi oblasti vo vtorom godu semiletki. Orenburg, Orenburgskoe knizhnoe izd-vo, 1960. 33p. (MIRA 14:9)

(Orenburg Province—Agriculture)

VYZXELETY, Gyula, dr.

Rapid micromethod for the analysis of urinary calculi. Orv. hetil. 105 no.48:2284 29 N '64.

1. Budapesti Orvostudomanyi Egyetem, II. Sebeszeti Klinika (igazgato: Mester Endre dr.).

LIPSHITS, Anatoliy L'vovich; VYZVILKO, S.A., inzh.-kapitan 2 ranga, red.; MEDNIKOVA, A.N., tekhn.red.

[Destroyers] Esmadrennye minonostsy. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 162 p. (MIRA 13:4)
(Destroyers (Warships))

SHNEYDER, Ivan Grigor'yevich; VYZVILKO, S.A., inzh.-kapitan 2 ranga, red.; MYASNIKOVA, T.F., tekhn.red.

[A boatswain's manual] Spravochnik botsmana. Moskva, Voen. izd-vo M-va oborony SSSR, 1962. 302 p. (MIRA 15:5)
(Seamanship—Handbooks, manuals, etc.)

LIFSHITS, Anatoliy L'vovich, kand. voyenno-morskikh nauk;
VYZVILKO, S.A., red.; SRIBNIS, N.V., tekhn. red.

[Cybernetics in the Navy] Kibernetika v Voenno-Morskom Flote. Moskva, Voenizdat, 1964. 257 p. (MIRA 17:3)

TIKHOMIROV, Vadim Pavlovich; VYZVILKO, S.A., inzh.-kapitan 1 ranga, red.; KONOVALOVA, Ye.K., tekhn. red.

[Control of ship maneuvers; in limited water areas]Upravlenie manevrami korablia; na stesnennykh akvatoriiakh. Moskva, Voen.izd-vo M-va oborony SSSR, 1962. 431 p. (MIRA 15:12)
(Ship handling)

MURZA, I.S.; SHEVEL'KO, P.S.; BRAGA, V.G.; ALEKSEYEV, B.A.; GORBACHEV, F.A.; SUKHANOV, S.S.; NEFEDOV, D.I., inzh.-polkovnik zapasa, red.; VYZVILKO, S.A., inzh.-kapitan 2 ranga, red.; SOLOMONIK, R.L., tekhn. red.

[Manual for an aircraft technician] Spravochnik aviatsionnogo tekhnika. Moskva, Voen. izd-vo M-va obor. SSSR, 1961. 510 p. (MIRA 15:3)

(Airplanes)

BELOSHITSKIY, V.P.; BAGINSKIY, Yu.M.; VYZVILKO, S.A., inzh.-kapitan 2 ranga, red.; KONOVALOVA, Ye.K., tekhn.red.

[Underwater weapons] Oruzhie podvodnogo udara. Moskva, Voen. izd-vo M-va obor.SSSR, 1960. 162 p. (MIRA 13:12)
(Torpedoes) (Mines, Submarine)

67752

SOV/126-8-5-14/29

24.7600

AUTHORS: Vzdornov, V.Ye., and Tsidil'kovskiy, I.M.

TITLE: Adiabatic Galvano- and Thermomagnetic Phenomena in Semiconductors. Part II - Mixed Conductivity

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 8, Nr 5, pp 671-677 (USSR)

ABSTRACT: Tolpygo (Ref 1) and one of the present authors (Ref 2) developed the theory of adiabatic galvano- and thermomagnetic effects in impurity semiconductors. The present paper is concerned with these effects in semiconductors with mixed conductivity. The theory is developed using the assumptions and the symbols given in Ref 2. In addition, it is assumed that the mechanisms of electron and hole scattering are the same. It is shown that all the transverse galvanomagnetic and thermomagnetic effects in semiconductors with an equal electron and hole concentration depend on the magnetic field in the same way as in the case of impurity conductivity, i.e. in the low-field region the effects are proportional to H, and in the strong-field region they are inversely proportional to H (in the case of the Hall effect this refers not to the field Ev but

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67752

SOV/126-8-5-4/29

Adiabatic Galvano- and Thermomagnetic Phenomena in Semiconductors. Part II - Mixed Conductivity

the current j_y). The character of the dependence of the longitudinal effects on the magnetic field is the same as in the case of impurity conductivity. Formulae are given describing the various effects, e.g. the Hall, Ettinghausen, Nernst, Leduc, etc. effects. There are 3 Soviet references.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, Academy of Sciences, USSR)

SUBMITTED: July 21, 1959

Card 2/2

VZENKOVA, G.YA.

PONOMARENKO, V.A.; VZENKOVA, G.Ya.

Reactions of direct synthesis haloid exchange and photochemical chlorination of methylgermane halogens. Izv. AN SSSR. Otd. khim. nauk no.8:994-996 Ag '57. (MIRA 11:2)

1. Fizicheskiy institut im. P.N. Lebedova AN SSSR i Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Chemical reactions) (Germane) (Halogenes)

VYZHAROVA, Zhivka Nikolovna; TRET'YAKOV, P.N., otvetstvennyy redaktor; TRAKHTENBERG, I.S., redaktor izdatel'stva; ZEMLYAKOVA, T.A., tekhnicheskiy redaktor

[The origin of Bulgarian plowing tools; on the problem of the ethnogenesis of the Bulgarian people] O proiskhozhdenii bolgarskikh pakhotnykh orudii; k voprosu ob etnogeneze bolgarskogo naroda. Moskva, Izd-vo Akademii nauk SSSR, 1956. 53 p. (MLRA 10:3)
(Plows) (Bulgaria--History)

VZENKOVA G. YA.

AUTHORS: Ponomarenko, V. A., Yegorov, Yu. P., Vzenkova, G. Ya. 62-1-9/29

TITLE: On the Production and the Properties of Some Alkylsilane-Deuterides (Polucheniye i svoystva nekotorykh alkilsilandeyteridov)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 1, pp 54-58 (USSR)

ABSTRACT: Among the great number of the various silicon-organic compounds hitherto obtained only some are to be found which contain in their composition beside hydrogen also its isotopes (deuterium and tritium). Among other it was of interest to investigate for the synthesis of the alkylsilane-deuterides the possibility of application of the deuteride of lithium (LiD) as the latter has hitherto not been used for the synthesis of the silanedeuterides. This presupposes, however, an alteration of the method of synthesis. Table 1 shows the properties of the obtained deuterides. There let see that the substitution of hydrogen in silicon compounds by deuterium exercises almost no influence on the boiling temperature of these compounds. Practically also the refraction index remains constant. Only the specific weight is considerably increased. It is assumed that the quantity of the binding refraction Si-D amounts to an average of 3,23 ml/molecule and thus is very similar to the binding refraction Si-H (according to Warrick 3,2o ml/molecules (reference 19). Data referring to the ex-

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perimental conditions are shown in table 2. The reduction of the alkylsilanechlorides to the corresponding deuterides occurs under already earlier described conditions. Summary: 5 new alkylsilanedeuterides were obtained and their physical properties investigated. It was found that the frequency of the valence oscillations of Si-D extend to the range of from 1530 - 1570 cm $^{-1}$ and that it decreases correspndingly to the reduction of the atomic number of D in Si. There are 2 tables, and 24 references, 2 of which are Slavic.

ASSOCIATION: Institute of Organic Chemistry imeni N. D. Zelinskiy of the AS USSR (Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: July 2o, 1956

AVAILABLE: Library of Congress

1. Alkylsilane-Deuterides-Synthesis 2. Alkylsilane-Deuterides-Properties

1. ZASLAVSKIY, M. YA., VYZHEMIRSKIY, M.M.

2. USSR (600)

4. Iron Founding

7. Castings from high-strength magnesian pig iron. (conclusion). Rech. transp. No. 6 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

40998

S/058/62/000/009/010/069
A006/A101

24.3500

AUTHORS: Vzhesinska, A., Yashchin, P.

TITLE: Quenching ZnS luminescence as a result of irradiation in an atomic reactor

PERIODICAL: Referativnyy zhurnal, Fizika, no. 9, 1962, 48, abstract 9V320 ("Rept. Inst. badań Jądrow PAN", 1961, no. 248, XIII, 9 p.,ill.; summaries in Polish and English)

TEXT: The authors studied the effect of irradiation in a reactor (neutron flux $2 \cdot 10^{13}$ $cm^{-2} \cdot sec^{-1}$, irradiation time 15 - 20 min) upon the luminescent properties of non-activated luminophors ZnS, that were excited by the radiation of a mercury tube through a Wood filter. It is shown that irradiation causes 1) shift of the quenching temperature range of luminescence toward the side of lower temperatures, 2) slight narrowing of emission bands at 93°K, 3) intensified infrared quenching, 4) increased superlinear dependence of the luminescence intensity upon the excitation intensity, 5) reduction of the accumulation capacity of phosphors, 6) reduced rate of luminescence intensity growth at the beginning of

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Quenching ZnS luminescence as a result...

excitation. The conclusion is drawn that radiation defects in ZnS have a hole trap nature, which act as non-radiative recombination centers.

M. Elango

[Abstracter's note: Complete translation]

Card 2/2

VZHESINSKIY, A.; KIRILLOV, N.I.

Studying the development of the negative color film in developers with various pH. Zhur.nauch.i prikl.fot.i kin. 7 no.1:5-19 Ja-F '62. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).
(Color photography—Developing and developers)

Vzhetsionko, G

POLAND/Theoretical Physics - Quantum Field Theory B-6

Abs Jour : Referat Zhur - Fizika, No 1, 1958, 198

Author : Vzhetsionko, G.

Inst : Institute of Physics, Polish Academy of Sciences, Poland.

Title : Character of the Potential of the Interaction Between an Electron and a Photon.

Orig Pub : Byul. Pol'skoy AN, 1956, Otd. 3-4, No 10, 657-663

Abstract : In the lowest approximation of the "old" Tamm-Dancoff method, an investigation is made of the scattering of photons by electrons, for the purpose of clarifying the properties of the electron-photon interaction potential in various spin states. It is noted that in a state with total momentum $j = 1/2$, an attraction potential takes place at $l = 0$, and a repulsion potential at $l = 1$. In the state with j 3/2, the repulsion potential

Card 1/2

1. B. I. VYZHGIN

2. USSR (600)

4. Bees

7. Bees as the object of study of the external structure of an insect. Est. v. shkole no 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

VYZHIGIN, G.F.

Effect of the spacing of producing wells on the development of carbonate pools. Neftepromysl. delo no.12:3-5 '64. (MIRA 18:3)

1. Neftepromyslovoye upravleniye "Kinel'neft'".

VYZHIGIN, G.B.

Effect of secondary recovery methods on the rate of carbonate reservoir production. Geol.nefti i gaza 6 no.8:16-19 Ag '62. (MIRA 15:9)

1. Promysel No.1 Neftepromyslovogo upravleniya tresta Kinel'skoy neftyanoy promyshlennosti.
(Kinel' Cherkassy District--Secondary recovery of oil)

DMITRIYEV, S.P., inzh.; VYZHIGIN, G.V., inzh.

Standardized reinforced concrete products for multistoried industrial buildings with girder ceilings. Prom.stroi. 8 no.7:11-14 '60. (MIRA 13:7)

1. Proyektnyy institut gipromoloko.
(Precast concrete--Standards)
(Factories--Design and construction)

YEVDOKIMOV, I.I.; ALEKSEYEV, V.D.; ASHIKHMIN, A.K.; BAYEV, N.V.; BEGLAR'YAN, P.A.; BYCHKOV, I.A.; VESLOVA, Ye.T.; VYZHEKHOVSKAYA, M.F.; GURETSKIY, S.A.; DEMIDOV, I.M.; YESIPOV, Ye.P.; ZHUKOV, V.D.; ZELINSKIY, M.G.; ZOL'NIKOV, F.T.; ZOLOTOVA, L.I.; KIVIN, A.N.; KOMARNITSKIY, Yu.A.; KONSTANTINOV, A.N.; KUL'CHITSKAYA, A.K.; MAKSIMENKO, I.I.; MELENT'YEV, A.A.; MOROZOV, I.G.; MURZINOV, M.I.; OZEMBLOVSKIY, Ch.S.; OSTRYAKOV, K.I.; PANINA, A.A.; PAVLOVSKIY, V.V.; PERMINOV, A.S.; PERSHIN, B.F.; PRONIN, S.F.; PSHENNYY, A.I.; POKROVSKIY, M.I.; RASPONOMAREV, Ye.A.; SEMIN, I.N.; SKLYAROV, Yu.N.; TIBABSHEV, A.I.; FARBEROV, Ya.D.; FEDOROV, G.P.; SHUL'GIN, Ya.S.; YAKIMOV, I.A.; VERINA, G.P., tekhn.red.

[Labor feats of railway workers; stories about the innovators] Trudovye podvigi zheleznodorozhnikov; rasskazy o novatorakh. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 267 p. (MIRA 12:9)
(Railroads) (Socialist competition)

VYZHIGIN, S. P.

Vyzhigin, S. P.

"Analysis of the Operation of Experimental Drilling Equipment (ZIF-1200 and ZIF-650) for Deep-Column Drilling." Min Higher Education USSR. Moscow Inst of Nonferrous Metals and Gold imeni M. I. Kalinin. Moscow, 1955. (Dissertation for the Degree of Candidate Technical Sciences.)

Knizhnaya Letopis': No. 27, 2 July 1955.

VYZHIGIN, S. P.

VYZHIGIN, S. P.: "An analysis of the exploitation of experimental drilling equipment (ZIF-1200 and ZIF-650) for deep column drilling." Moscow, 1955. Min Higher Education USSR. Moscow Geological Prospecting Inst imeni S. Ordzhonikidze. (Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 47, 19 November 1955. Moscow.

VYZHIGINA, A. P.: Master Tech Sci (diss) -- "The trend of the grape and wine industry in the Volga region and the outlook for its development". Moscow, 1959. 15 pp (Min Higher Educ USSR, Moscow Tech Inst of the Food Industry), 150 copies (KL, No 15, 1959, 116)

VYZKUM, M.;PLUHAR, J.

"Economic Heat-resisting Alloys for Temperatures above 800°C. Prace." p. 9. (SLEVARENSTVI. Vol. 2, No. 4, Apr. 1954; Praha, Czech.)

So: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 4, April 1955, Uncl..

VZAIMOSVYAZ'

21025 Vzaimosvyaz' Mezhdu [illegible] tkani i ozotistym chlenom v usloviyakl eksperimental'nogo osteomiyelita--Aut: In-ta (Kazansk Nauch--issled. In-t ortopedii i vosstanovit. Khirurgii), t.III, 1942, s.303-17.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

SOV/126-7-6-1/24

AUTHORS: Vzdornov, V. Ye. and Tsidil'kovskiy, I. M.

TITLE: The Effect of Current-Carrier Degeneracy on Transport Processes in Semiconductors

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 6, pp 801-808 (USSR)

ABSTRACT: In semiconductors with high conductivity, conditions are sometimes encountered when the current-carrier distribution is not of the Maxwell-Boltzmann type, i.e. the electron gas becomes partially degenerate. Physical properties of degenerate semiconductors were first discussed by Samoylovich and Korenblit (Ref 1). Some formulae and graphs dealing with the transport processes in degenerate semiconductors placed in weak magnetic fields are given in a paper by Wright (Ref 2). Unfortunately, Wright's paper contains a number of errors. Deduction of the formulae for the adiabatic (Ettingshausen and Righi-Leduc) coefficients did not allow for the thermal conductivity of the lattice which, in semiconductors, is considerably greater than the electronic thermal conductivity. Wright's formula, which gives the variation of resistance in a magnetic field, is also incorrect. Moreover, all Wright's

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The Effect of Current-Carrier Degeneracy on Transport Processes in Semiconductors

formulae are given in a form which is not suitable for direct comparison with experimental data. Rodot (Ref 3) obtained formulae for the longitudinal Nernst-Ettingshausen effect for degenerate semiconductors with scattering of electrons on the acoustical vibrations of the lattice and on impurity ions. Rodot's general formula for the Nernst-Ettingshausen effect in strong magnetic fields is incorrect; this can be seen from the special case of the non-degenerate electron state. Stimulated by inadequacies of earlier work, the present authors derived expressions for galvanomagnetic and thermomagnetic effects in degenerate semiconductors placed in very weak and very strong magnetic fields. It was assumed that
1) The current-carrier energy is proportional to the square of quasi-momentum ($\varepsilon = p^2/2m$);
2) the mean free path l of current carriers is a power function of the energy ε ($l = a\varepsilon^r$, where r is arbitrary);
3) the current-carrier distribution is of the Fermi type

$$f_0 = \left[\exp\left(\frac{\varepsilon - \mu}{kT}\right) + 1\right]^{-1}.$$

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The current-carrier mobility is then

$$u = \frac{\sqrt{2}e}{3\sqrt{m}} a(kT)^{r-\frac{1}{2}} (1 + r) \frac{F_r}{F_{1/2}},$$

and their concentration

$$N = \frac{4\pi}{h^3} (2mkT)^{3/2} F_{1/2}(\mu^*),$$

where $\mu^* = \frac{\mu}{kT}$ is the reduced chemical potential and

$$F_k(\mu^*) = \int_0^\infty \frac{x^k dx}{\exp(x - \mu^*)+1}$$

is the Fermi integral.

Expressions for all galvanomagnetic and thermomagnetic effects were obtained by means of the general formulae derived earlier by Bass and Tsidil'kovskiy (Refs 4,5). Formulae are given for:

The Effect of Current-Carrier Degeneracy on Transport Processes in Semiconductors

the transverse Nernst-Ettingshausen effect - weak magnetic fields (Eq 1 and Fig 1a), strong magnetic fields (Eq 2 and Fig 1b);
the Righi-Leduc effect - weak magnetic fields (Eq 3 and Table 1), strong magnetic fields (Eq 4 and Fig 2);
the longitudinal Nernst-Ettingshausen effect - weak magnetic fields (Eq 5 and Fig 3a), strong magnetic fields (Eq 6 and Fig 3b);
the electronic thermal conductivity - weak magnetic fields (Eq 7 and Fig 4a), strong magnetic fields (Eq 8 and Fig 4b);
the Hall effect - weak magnetic fields (Eq 9 and Fig 5), strong magnetic fields (Eq 10);
the Ettingshausen effect - weak magnetic fields (Eq 11 and Table 2), strong magnetic fields (Eq 12 and Fig 6);
the electrical conductivity - weak magnetic fields (Eq 13 and Fig 7a), strong magnetic fields (Eq 14 and Fig 7b).
The paper is entirely theoretical.

SOV/126-7-6-1/24

The Effect of Current-Carrier Degeneracy on Transport Processes in Semiconductors

There are 7 figures, 2 tables and 5 references, 3 of which are Soviet, 1 English and 1 French.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Metal Physics, Ac. Sc., USSR)

SUBMITTED: December 4, 1958

Card 5/5

PROSTAKOV, Anatoliy Leonidovich; VYZVILKO, S.A., inzh.-kapitan 2 ranga, red.; SRIBNIS, N.V., tekhn. red.

[Underwater acoustics in the navy] Gidroakustika v voenno-morskom flote. Moskva, Voen.izd-vo M-va oborony SSSR, 1961. 139 p. (MIRA 15:2)
(Underwater acoustics) (Naval reconnaissance)

VZDOROV, V. A.

"Investigation of the Operation of A Cone With Variable Frustrums on a Locomotive." Cand Tech Sci, All Union Sci Res Inst of Railroad Transport, Min of Railroad Transport USSR, Moscow, 1955. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

VZENKOVSKIY, A., and ORENBAKH, B.

Cotton Gins and Ginning

Means of raising productivity in cotton mills. Khlopkovodstvo no. 1, 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

VZENYONSKIY, A., and GRINBAKH, B.

Cotton Gins and Ginning

Means of raising productivity in cotton mills. Khlopkovodstvo no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

VZENKONSKIY, A. V.

23334. O rabote gidronasosov zhlopkovykh pressov. Tekstil. Prom-ST' , No. 7, 1949, c. 9-10

SO: LETOPIS' NO. 31, 1949

VZENKOVA, G. Ya.

V. F. Mironov, V. A. Ponomarenko, G. Ya. Vzenkova, I Ye. Dolgiy and A. D. Petrov, "The Synthesis of Germanium-organic Compounds."

Report presented at the Second All-Union Conference on the Chemistry and Practical Application of Silicon-Organic Compounds held in Leningrad from 25-27 September 1958.
Zhurnal prikladnoy khimii, 1959, Nr 1, pp 238-240 (USSR)

SOV/20-122-3-23/57

AUTHORS: Ponomarenko, V. A., Vzenkova, G. Ya., Yegorov, Yu. P.

TITLE: Alkyl Germanium Hydrides and Alkyl Germanium Deuterides (Alkilgermaniygidridy i alkilgermaniydeyteridy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 405-408 (USSR)

ABSTRACT: Since 1886 (Ref 1) only few organic (17) and inorganic (13) germanium hydrides have been produced (Ref 2). The germanium deuterides known since 1954 contain no organic ones. Both groups of compounds mentioned are of importance for the elaboration of new methods of production of organogermanium compounds. Moreover, the refraction of the Ge-H and Ge-D bindings had to be determined at least with a certain approximation. In the present paper the production and the properties of the following compounds are described: 1) $CH_3GeH_3 \rightarrow (CH_3)_2GeH_2 \rightarrow (CH_3)_3GeH$. 2. $CH_3GeD_3 \rightarrow (CH_3)_2GeD_2 \rightarrow (CH_3)_3GeD$. 3. $C_2H_5GeH_3 \rightarrow (C_2H_5)_2GeH_2 \rightarrow (CH_3)_2(C_2H_5)GeH$. 4. $C_2H_5GeD_3 \rightarrow (C_2H_5)_2GeD_2 \rightarrow (CH_3)_2(C_2H_5)GeD$. All these organic germanium hydrides and deuterides were produced in a sur-

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ficient yield under conditions which were similar to that of the production of alkyl silane hydrides and deuterides (Ref 6) i. e. from the corresponding alkyl germanium chlorides (bromides) LiH and LiD. The physical properties of these compounds are given on table 1. It may be concluded from it that the refraction of the Ge-H binding is on the average about 3,38 ml/mol, that of the Ge-D binding 3,34 ml/mol. In the production of the initial compounds $(CH_3)_2(C_2H_5)GeCl$ and $(C_2H_5)_2GeCl_2$ by means of the organomagnesium method the exchange reaction of chlorine with bromine was observed (Ref 8). Bromide yield was sufficiently high. It can be concluded from this fact that in germanium chlorine atoms have an increased exchangeability with the bromine atoms in the Grignard reaction. In analogy to the hydrisilanes (Ref 12) the authors proved in the present paper the possibility of application of chloroplatinic acid by using the Karash reaction for the germanium hydride compounds at the example of trichloro germanium. In conclusion the spectra of the combination dispersion of the compounds mentioned in the title are discussed. There are 1 table and 16 references, 5 of which are Soviet.

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Alkyl Germanium Hydrides and Alkyl Germanium Deuterides

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR) Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev, AS USSR)

PRESENTED: May 9, 1958, by A. A. Balandin, Member, Academy of Sciences, USSR

SUBMITTED: May 5, 1958

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5.3700

77085
SOV/62-59-12-29/43

AUTHORS: Batuyev, M. I., Ponomarenko, V. A., Matveyeva, A. D., Vzenkova, G. Ya.

TITLE: Optical Investigation of Alkylgermanium Chlorides in Connection With Some Peculiarities of Their Chemical Behavior

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 12, pp 2226-2233 (USSR)

ABSTRACT: Several studies of similar content were published by the authors previously (Zh. obshch. khimii, 1956, Vol 26, p 2336; this journal, 1956, p 1070; ibid., 1957, p 515; ibid., 1958, p 996). The authors showed that many chemical characteristics distinguishing organosilicon compounds from carbon compounds are also present, and even more pronounced, in organogermanium compounds (this journal, 1956, p 1146; ibid., 1957, Nr 8, p 994; ibid., Nr 2, p 199; Dokl. AN SSSR, 1954, Vol 94, p 485; this journal, 1957, Nr 3, p 310). Methyltrichlorogermane and methyltrichlorosilane, unlike ethyltrichlorogermane

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and ethyltrichlorosilane, could not be chlorinated with sulfuryl chloride. Ethyltrichloro-compounds of both germanium and silicone were easily chlorinated but the β-directing effect of the $GeCl_3$-group was considerably stronger than that of the $SiCl_3$-group. Chlorination of CH_3GeCl_3, $(CH_3)_2GeCl_2$, and similar compounds to di- and trichlorides proceeded more rapidly than the chlorination of the corresponding silicon compounds. The yield of germanium monochlorides was lower than that of the corresponding silicon compounds. Dehydrochlorination of $Cl_3GeCH_2CH_2Cl$ with quinoline yielded $Cl_3GeCH{=}CH_2$ as main product, and also $GeCl_4$, whereas practically no $SiCl_4$ was obtained on dehydrochlorination of $Cl_3SiCH_2CH_2Cl$. This can be explained by an easier β-elimination in β-chloroethyltrichlorogermane than in β-chloroethyltrichlorosilane. These

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peculiarities of the chemical behavior of Ge are due in the first place to its physicochemical properties; some of these were optically investigated by the authors (this journal, 1956, p 1243). The present study deals with investigation of the vibrational frequencies of C—H bonds in methylene and methyl groups of tetraethylgermane, and ethyl-, methyl-, chloroethyl- and chloromethylgermanium as compared with vibrational frequencies of the corresponding silicon compounds and normal paraffins. Spectrograph ISP-51 was used in the study, and Raman spectra of 11 germanium compounds were investigated. A possible explanation for the behavior of Ge and Si compounds is advanced. In chlorination of $CH_3CH_2GeCl_3$, the electrophilic Cl-atoms of SO_2Cl_2 should be apparently directed toward electronegative C—H bonds at atoms adjacent to the germanium atom. However, Ge has a larger electron shell than Si; also, the negative pole of the $CH_3CH_2GeCl_3$ molecule is concentrated in the region of Cl-atoms. These factors do not allow the

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other, more negative, end of SO_2Cl_2 molecule to approach the region of the methylene C—H bonds; the molecule moves away from the methylene bond region toward the methyl group, and the chlorination proceeds in the β-position to a much greater extent than in the chlorination of $CH_3CH_2SiCl_3$. The ratio of α to β isomers in the chlorination of $CH_3CH_2GeCl_3$ with sulfuryl chloride in presence of benzoyl peroxide was 1:9, whereas in chlorination of $CH_3CH_2SiCl_3$ this ratio was only 1:2.5. It is also evident that the deflection of the SO_2Cl_2 molecule from the methyl group adjacent directly to Ge-atom in CH_3GeCl_3 due to the above factors hinders the chlorination of this compound. The Raman spectrum of β-chloroethyltrichlorogermane showed a considerably higher number of lines (15 lines more) than the number expected theoretically, and a twofold increase of the vibrational frequency of methylene C—H bonds. This indicated the possible

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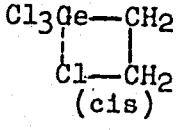
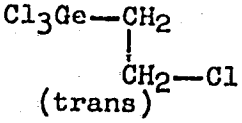
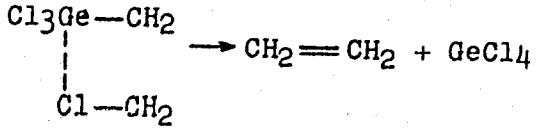
existence of the above compound in two isomeric forms:





Intramolecular interaction Ge....Cl in the cis-isomer can promote β-elimination:



The formation of $GeCl_4$ on dehydrochlorination of chloroethyltrichlorogermane with quinoline can thus be explained. There are 8 tables; and

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14 references, 1 U.S., 2 U.K., 11 Soviet. The U.S. and U.K. references are: C. L. Agre, W. Hilling, J. Amer. Chem. Soc., 74, 3895 (1952); N. V. Sidgwick, The Chemical Elements and Their Compounds, Vol 1, Oxford, 1950; W. Cresswell, J. Leicester, A. Vogel, Chem. and Industry, 1953, 19; same authors, J. Chem. Soc., 1952, 514.

ASSOCIATION: Institute of Mined Fuels, Academy of Sciences, USSR (Institut goryuchikh iskopayemykh Akademii nauk SSSR)

SUBMITTED: February 15, 1958

Card 6/6

VZENKOVA, G. Ya.

PONOMARENKO, V.A.; YEGOROV, Yu.P.; VZENKOVA, G.Ya.

Preparations and properties of some alkylsilanedeuterides.
Izv. SSSR. Otd. khim. nauk no.1:54-58 Ja '58. (MIRA 11:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Hydrides) (Silane)

VZGLYADOVA, K.

Servicing of rest home guests by the Greater Yalta enterprises. Obshchestv.pit. no.1:11-12 Ja '63. (MIRA 16:4)

1. Nachal'nik planovo-finansovogo otdela Yaltinskogo tresta restoranov. (Yalta--Restaurants, lunchrooms, etc.)

Vazenkova, G. Ya.

Direct synthesis, halogen exchange, and photochemical chlorination of methylhalogermanes. V. A. Ponomarenko and G. Ya. Vzenkova (N. D. Zelinskii Inst. Org. Chem. Acad. Sci. U.S.S.R., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1957, 994-[illegible].—In direct synthesis of Ge derivs. from MeX and Ge (cf. Rochow, [illegible] 41, 6157i, 42, 2231b) the yield of $MeGeX_3$ rises with increased amt. of Cu mixed with Ge or alloyed with Ge. With 4:1 Ge-Cu alloy MeBr gave at 450° Me_2GeBr_2 (I), b_{760} 153°, d_{20} 2.1163, n_D^{20} 1.5268, and somewhat more $MeGeBr_3$, b_{760} 168°, 2.6337, 1.5770. Me_2GeCl_2 (740 g.) and MeMgBr gave 12% Me_3GeCl, b_{760} 98°, 1.2193, 1.4337 (*loc. cit.*), along with 25% I. A 22% yield of Me_3GeBr, b_{760} 115°, 1.5458, 1.4660, was obtained from 21.5 g. Me_3GeCl and MgClBr refluxed 10 hrs. in Et_2O. $MeGeCl_2CH_2Cl$ (41 g.) with MeMgI from 10 g. MeI gave in Et_2O 71% Me_2GeCH_2I, b_{760} 154°, 1.7160, 1.5112. An 18.5% yield of [illegible] b_{760} 149°, 1.8415 [illegible]

[illegible]

4

2-May

4E4j

4E3d

4E2c (j)

VZHESINSKIY, A.: Master Tech Sci (diss) -- "Investigation of perfecting the process of developing a color film negative". Moscow, 1958. 10 pp (Min Culture USSR, All-Union Sci Res Cinephotographic Inst NIKFI), 200 copies (KL, No 3, 1959, 110)

SOV/56-37-1-15/64

21(7)
AUTHOR: Vzhetsionko, G.

TITLE: The Ultraviolet Asymptotic Behavior in the Interaction of K-Mesons With Baryons (Ul'trafioletovaya asimptotika vo vzaimodeystvii K-mezonov s barionami)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 1(7), pp 98-104 (USSR)

ABSTRACT: The present paper deals with the ultraviolet asymptotic behavior mentioned in the title for various variants of the relative parity of baryons under the assumption of a weak coupling. The author first points out some pretended shortcomings of two previous papers, and it seems to him more logical to consider, in investigating the ultraviolet asymptotic behavior, all possible renormalizable interactions. As an example, the author investigates the ultraviolet asymptotic behavior for the interaction of K-mesons with baryons (i.e. the so-called theory of medium-strong interactions). The constants of interaction of the K-mesons with all baryons are considered. There are some distinct indications that the constants of interaction of the K-mesons with the baryons are much smaller than the meson constants

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The Ultraviolet Asymptotic Behavior in the Interaction of K-Mesons With Baryons

($g_K^2/4\pi \ll g_\pi^2/4\pi$). The author pays special attention to the ultraviolet asymptotic behavior in various variants of the relative parity of baryons. At first, the renormalization group in the theory of medium-strong interactions is dealt with. Under the assumption of the charge independence of the interaction of K-mesons with baryons, the Lagrangian function of the system is written in the form $L = L_{free} + L_{int}$ with

$$L_{int} = g_1 \bar{N}_1 \Gamma_1^0 \Lambda K + g_2 N_1 \bar{\Gamma}_2^0 \tau \Sigma K + g_3 \bar{N}_2 \Gamma_3^0 \Lambda \bar{K} + g_4 N_2 \Gamma_4^0 \tau \Sigma \bar{K} +$$

$+ h(\bar{K}K)(\bar{K}K)$ + Hermetian conjugate. $N_1 = \begin{pmatrix} p \\ n \end{pmatrix}$, $N_2 = \begin{pmatrix} \Xi^0 \\ \Xi^- \end{pmatrix}$,

$K = \begin{pmatrix} K^+ \\ K^0 \end{pmatrix}$, $\Lambda = \Lambda^0$, $\Sigma = \begin{pmatrix} \Sigma^+ \\ \Sigma^0 \\ \Sigma^- \end{pmatrix}$, $\Gamma_i^0 = 1, \gamma_5$ $(i = 1,\ldots,4)$,

$\gamma_5^+ = -\gamma_5$. The choice of 1 and γ_5 depends on the relative parity of the baryons. Expressions for the Green function of the fermion, the Green function of K-mesons, and for the vertex parts, are also written down. For the matter of short-

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noss, the renormalization group is not completely written down. There is the following system of invariant charges: $\sigma_1 = S_{N_1} S_\Lambda S_K G_1^2 g_1^2$, $\sigma_2 = S_{N_1} S_\Sigma S_K G_2^2 g_2^2$, $\sigma_3 = S_{N_2} S_\Lambda S_K G_3^2 g_3^2$, $\sigma_4 = S_{N_2} S_\Sigma S_K G_4^2 g_4^2$, $\sigma = S_K^2 \Box h$. Lee's equations for the above invariant charges are indicated in an enclosure. The author wrote these equations for the case of ultraviolet asymptotic behavior. Subsequently, a simpler problem is investigated. Lee's system for the case of ultraviolet asymptotic behavior is invariant with respect to the exchange $\sigma_1 \to \sigma_3$, $\sigma_3 \to \sigma_1$, $\sigma_2 \to \sigma_4$, $\sigma_4 \to \sigma_2$. This very circumstance permits the simplification of the system. In the case of ultraviolet asymptotic behavior, the difference of the baryon masses can be neglected, and the system of Lee's equations can then be further simplified. The next part deals with the ultraviolet asymptotic behavior without considering the scattering of K-mesons on K-mesons. The two cases $\xi = -1$ and $\xi = +1$ are investigated.

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Conclusions: 1) The investigated integral curves in the space (ϱ, σ_1, σ_2) are not closed. This is why the boundaries of weak coupling are surpassed at increasing momenta just as in the electrodynamic or meson theory. 2) The behavior of the Green function and of the vertex parts depends considerably on the relative parity of the baryons. 3) The question as to inhowfar the assumption of the author about the weak coupling (ϱ, σ_1, $\sigma_2 \ll 1$) is correct, becomes clear if the value of the constants g_i in L_{int} can be accurately determined. 4) The interaction between pions and baryons has not yet been considered. The author thanks D. V. Shirkov for numerous remarks and for his constant interest in the present paper. There are 3 figures, 1 table, and 9 references, 6 of which are Soviet.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: January 3, 1959

Card 4/4

1. VZHNOV, A. I., DOCENT, MKRTCHYAN, E. S., ENG.

2. USSR (600)

4. Dynamos

7. Three-phase converting series generator acting as negative resistor. Elektrichestvo no. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

VZKOV, A. I.

Ob odnom simvolicheskom ischislenii, MAT. SB., 41, (1934), 17-43.

SO: Mathematics in the USSR, 1917-1947
edited by Jurosh, A. G.,
Markushevich, A. L.,
Rashevskiy, P. K.
Moscow-Leningard, 1948

VZNUZDAYEV, N.A.; KARPACHEVSKIY, L.P. (Uspenskoye, Moskovskoy oblasti).

"Dry" streams of Kamchatka. Priroda 49 no.5:103-104 My '60. (MIRA 13:5)
(Kamchatka--Water, Underground)

VZNUZDAYEV, N.A.; KAPACHEVSKIY, L.O.; Prinimali uchastiye: LIKHTMAKHER, S.N.; GRACHEV, A.V.; STEFIN, V.V.; DEMBO, A.T.; SHEREMET, B.V.

Hydrophysical properties and water balance of forest soils in the central Kamchatka Valley. Pochvovedenie no.10:30-43 O '61. (MIRA 14:9)

1. Laboratoriya lesovedeniya AN SSSR.
(Kamchatka Valley--Forest soils)

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(Dniester Valley--Erosion)

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Hydrochemical zonality of the artesian waters of the Dobruja downwarping and of the adjoining slope of the Russian platform. Dokl. AN SSSR. 118 no.4:792-795 F '58. (MIRA 11:4)

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Karst phenomena in Moldavia. Izv. AN Mold. SSR no.8:85-96 '63. (MIRA 18:5)

AUTHOR: Vznuzdayev, S. T. 20-118-4-46/61

TITLE: Hydrochemical Zonality of the Artesian Waters of the Near-Dobrudja Downwarping and of the Adjoining Slope of the Russian Platform (Gidrokhimicheskaya zonal'nost' artezianskikh vod Pridobrudzhskogo progiba i prilegayushchego sklona Russkoy platformy)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 792-795 (USSR)

ABSTRACT: Investigations during the last years in the region between the middle course of the Dnestr and Prut furnished new data on the geology and hydro-geology of this region which hitherto has been investigated only to a small extent. The tectonic structure was characterized by a number of researchers (references 1-7). Hence it is concluded that the Northern part of the region belongs to the slope of the Russkaya platforma, or, more precisely, to the slope of the Ukrainskiy crystalline massif and the Prichernomorskaya depression, whereas the Southern part belongs to the Pridobrudzhskiy downwarping. The geological structure of the region which is repeated here in short favors the formation of artesian waters which are bound here

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mainly to the sediments of Cambrian, upper Silurian, Jurassic, upper Cretaceous, Paleogene, Sarmatian, and Meotis (meotis). In younger formations there is mostly ground water and more rarely artesian waters under low pressure. The feeding sources for the individual sediment layers are given. For the Paleozoicum they lie in the Volyno-Podol'skoye plateau, for Jurassic in the marginal part of the platform. Upper Cretaceous is fed with water from the northern inter-drainage area Dnestr-Prut and from outside. Sarmatian and Meotic sediments are fed with water from important parts of the inter-drainage area and adjacent regions. The circulation of the waters in Sarmatian and Meotic sediments is characterized by an active water exchange, in other layers the circulation is complicated. The artesian waters move within the range of the platform from North-East towards South-West, within the range of the Pridobrudhskiy downwarping from north-west towards south-east where they discharge apparently into the Black Sea. Chloride-sodium and chloride-sodium-calcium soles in the Pridobrudzhskiy downwarping and in the marginal zone of the Russ'kaya platform are developed in the mentioned area. Salty chloride--sodium waters are bound to the Cambrian sediments of the plat-

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form as well as to the Cretaceous sediments of the margin of the platform and to the mentioned downwarping. Hydrocarbonate-sulfate-sodium-salt waters are developed in the Cretaceous sediments of the central part of the inter-drainage area. Hydrocarbonate-sodium-, sulfate-hydrocarbonate-sodium-, sulfate-sodium-, sulfate-chloride-sodium-, and chloride-sodium salt water are found in the Prut-near region and in the southern part in Sarmatian and Meotic sediments. In the same sediments of the northern and central part hydrocarbonate-calcium-, hydrocarbonate-sulfate-calcium and hydrocarbonate-sodium waters are distributed, the latter mostly as fresh water. North of the inter-drainage area also fresh water is found in a small strip at the Dnestr of the hydrocarbonate-sulfate-calcium and hydrocarbonate-sodium type in Cambrian and upper Cretaceous sediments. There are 2 figures and 8 references, all of which are Soviet.

ASSOCIATION: Moldavian Branch, AS USSR (Moldavskiy filial Akademii nauk SSSR)

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